

Miscellaneous.

NEW PROPELLERS.—A patent has been taken out under the new law by Professor A. Crestadoro for propelling wheels with plain circumference and without paddles or blades, the use of which he regards as quite as much a mistake as the original idea of toothed wheels on locomotives. The adhesion of the water and the wheel or drum he considers sufficient for propulsion, and he proposes to immerse the drums or cylinders entirely beneath the surface of the water, protecting or covering their upper circumference (and the posterior portion of the lower?) with a semi-cylindrical case. The total cessation of the vibration produced by blades is thus anticipated. It is to be hoped that it is not the mere analogy of the iron bite of the rail, but practical experiment which has called forth a patent like this.—The singular properties of that strange and mystic parabolical instrument of offence in the hands of savages, the boomerang, have led to its adoption for the shape of screw propellers. It is known that the peculiar form of the boomerang enables it to present the least possible resistance to rapid and eccentric movement through the air, but whether such a property enables it to act to advantage in the ocean as a propeller remains to be seen.

DRAINAGE AND WATER OF ASHBY-DELA-ZOUCH.—The Local Board of Health of this ancient and interesting town is now actively proceeding with works for its sanitary improvement, consisting of the laying a complete system of pipe-sewers, and the requisite works for obtaining an abundant supply of excellent water. The engineers are Messrs. Lee and Stevenson. The works have been divided into eight contracts, and entrusted to the under-mentioned parties:—Contract, No. 1. For supplying the iron pipes; to Mr. Haywood, of Derby. No. 2. For supplying the pottery pipes; to Messrs. Stephen Green and Co. of Lambeth. No. 3. For laying the iron pipes for water supply; No. 4. For laying the pottery pipes for drainage; No. 5. For constructing water-closets, forming gullies, fixing hydrants, &c.; No. 6. For constructing two filter-beds, pure-water tank, and service reservoir; all to Messrs. Tomlinson and Harpur, of Derby. No. 7. For supplying and fixing iron tank in elevated tower; to Messrs. Waller, Chesterfield. No. 8. For building engine-house, cottage, and water tower; to Messrs. Smith and Elliott, of Ashby. The engine is ready for fixing, and it is intended that the whole of the works shall be completed by the month of May. We seriously urge on the Board the importance of seeing that the pipe drains are strong and properly laid.

IPSWICH MECHANICS' INSTITUTION.—The first lecture for the season was delivered, on 12th instant, by Mr. Cuthbert W. Johnson, F.R.S. chairman of the Croydon Board of Health. The subject of the lecture was Sanitary Improvements. In speaking of draining, the lecturer instituted a comparison between the rate of mortality in Bectles and Bungay, the former being a drained, and the latter an undrained town. From 1831 to 1841 the deaths were one in fifty-nine in Bectles, and one in seventy-one in Bungay. Another instance was afforded by the parish of St. Mary Leicester, containing a population of 22,000, almost all of whom are artisans. It was found that in one year, 1840, the average age of those who died was about 18 years. It was then determined to ascertain, as the parish was partially drained, if in the drained portions, longevity was promoted. The deaths in different streets were therefore ascertained, and the following notable results arrived at:—Average age of those who died in the drained streets, 23½ years; average in streets partially drained, 17½ years; average in streets entirely undrained, 13½ years. A full-sized drawing of the sewer constructed for the new Houses of Parliament, was suspended in the Lecture Hall. For the drainage of the new Houses of Parliament, said the lecturer, a sewer had been constructed like many of the London sewers, three feet wide and five or six feet high, but it was found quite ineffectual for drainage, as the water never arrived at the mouth of it, but all

soaked away through the bricks, leaving the solid deposit on the bed of the sewer: in fact, the stream was not sufficient to make a current in the sewer to carry it along. The sewer was therefore abandoned, and a 9-inch glazed earthenware pipe placed along the bottom of it, which immediately remedied the evil, and is still acting perfectly well. The prevalence of consumption in Ipswich, he observed, called for the serious attention of the inhabitants. The lecturer next pointed out, with the aid of diagrams, the manner in which the drainage of a town should be effected, and remarked upon the benefits which would arise to the town if placed under the provisions of the Health of Towns Act. That which is necessary to be done could only be accomplished by an Act of Parliament. No voluntary principle could bind the refractory or unreasonable. Mr. J. B. Alexander occupied the chair.

ARTISAN SCHOOLS OF DRAWING FOR CLERKENWELL.—The object of the Suburban Artisan Schools, as our readers may remember, is to place within the reach of all classes of workmen engaged in trades dependent on the fine arts such a knowledge of form in the execution of ornamental designs and of the rudiments of geometric drawing as will enable them to compete successfully with their continental rivals; and to afford them such recreation and employment during their leisure hours, as will not only render them skilful mechanics, but also conduce to their moral and social improvement. In the Camden-town school it has been satisfactorily proved that artisans, desirous of enjoying its advantages, may be readily instructed in drawing and modelling by a method of tuition at once easy and expeditious. The success of this, the parent school, has induced its founders at once to extend their system of instruction to other districts; and the number of workpeople employed in the parishes of Islington and Clerkenwell in dissolving, in casting and chasing metals, in jewellery and clockmaking, in masonry, carving, and the various branches of house decorating, renders it very desirable to establish a school in these districts on a permanent footing. With this object commodious premises have been secured at a moderate rent in William and Ann Streets, Clerkenwell, and the school will be opened as soon as the necessary fittings and models can be provided. For the funds required to accomplish this, the local committee appeal with confidence to all the friends of education and the lovers of true art, and we hope will not do so in vain. The Marquis of Northampton is the president.

PARTIAL DESTRUCTION OF A VIADUCT ON THE MIDLAND RAILWAY.—The Crow Mills Viaduct, between the Wigston and Countesthorpe stations, on the Midland line of railway, about five miles south of Leicester, has had a number of its piers and arches washed away by an inundation in consequence of the recent rains, which have laid various portions of railways throughout the country under water. A part of the Crow-mills Viaduct had been recently reconstructed, but this part it is said remains quite sound. Till a temporary wooden bridge has been erected, which it was estimated would take a fortnight to do, the traffic along this part of the line cannot be resumed. Meantime the through-trains between London and the north run round by Hampton Junction, near Birmingham, and all traffic between Derby and Rugby passes the same way. The trains from Leicester to Rugby and London, and vice versa, run round by Burton-on-Trent and Hampton Junction, lengthening the journey between Leicester and Rugby by about sixty miles. The mails and newspapers have thus been delayed several hours.

THE LEEDS SEWERAGE.—In consequence of its being stated in the *Leeds Mercury*, that the iron tubing below the river near Hunslet Suspension-bridge was awry, that the sewer under the Great Northern Railway station was on a false gradient, and indeed on a curve, leading to the fear that the gradients were all wrong together, and that some of the earthenware tubes were crushed by superincumbent weight, an investigation was instituted by the *Intelligencer*, in which it is explained that

when the previous contractor abandoned his contract, the stakes driven in the river to show the centre of the line to be taken were removed, and hence some awkwardness and difficulty, but no real defect in the sewerage; that in consequence of being prevented from sinking shafts on the railway company's premises, there was a slight defect in the gradient, which can easily be altered if insisted on; that the sewers, so far as already formed, have been in free and unobstructed use during the recent inundations, showing that the gradients are not all wrong, as alleged or feared; and that no such thing as a fracture or crushing of any tube has occurred. It was also alleged that there was no proper supervision, which the *Intelligencer* denies, explaining that, besides the engineer, there are two competent clerks of works.

THE IRON TRADE.—Some of the local newspapers more particularly interested in the iron trade, as at Birmingham, are now themselves endeavouring, we observe, to moderate the unwholesome excitement which appears to be so incidental to this trade; and the masters begin themselves to doubt the policy of that rapid series of advances in price on which they had evidently resolved, and which indeed they have already carried quite far enough in the mean time. Nevertheless, there is still much talk of another advance of 20s. a ton before Christmas. Some impatient fortune-hunters would even fain take more than one 20s. stride by that time, with the ostensible purpose of stopping "the superabundant demand for iron." Would it not be well they were providing against the superabundant supply of iron, which is but too likely soon to topple their grand scheme of rising prices? Both supply and demand, we fear, are extending unnaturally and unhealthily. Much of the demand is on speculation, and a supply to meet such a demand can do little good ultimately to the trade at large.

A WELLINGTON MEMORIAL.—Her Majesty has headed with 1,000*l.* a subscription for the erection and endowment of a school or college, to bear the name of the Duke of Wellington, and to be devoted to the gratuitous or nearly gratuitous education of orphan children of indigent and meritorious officers in the army. Doubtless a purpose so auspiciously announced will be accomplished in a manner commensurate to the twofold object in view. We have every confidence that the renown of the Wellington College, and the helping hand wherewith it is destined to succour and comfort the orphans of the Duke's less fortunate companions in arms, will constitute a memorial worthy, indeed, both of the old soldier and his country. Offerings and consolations such as these may best justify us in saying with Mackay,—"Dried be the tears that fall; Love bears the warrior's pall; Fame shall his deeds recall; Britain's right hand!"

THE INTERMENTS ACT, KENSINGTON.—If there is any merit to be awarded to the first metropolitan parish which availed itself of the new law for extramural interments, pray let the public know that it was Kensington, and not Marylebone, as asserted by the speakers in that vestry the other day, and proclaimed in most of the public prints, that set the example. The Kensington parishioners, by vote of vestry, unanimously, on the 2nd of August last, set the example;† and they are so far in advance of other parishes that they have selected their ground for a cemetery, with the sanction of the Home Secretary, and are negotiating for the purchase of it.—ONE OF THE BURIAL BOARD.

PUBLIC PARKS AND LIBRARY AT MACCLESFIELD.—The committee for establishing public parks and a free library at Macclesfield, had obtained for that object 700*l.* including 300*l.* from the working classes, at the beginning of last week. They have since received 300*l.* from Mr. E. C. Egerton, M.P.; 20*l.* from his lady, and 100*l.* from his father, Mr. Wilbraham Egerton, Tatton-park, making a total of 1,200*l.*

* "Moors for the Mighty Dead." Composed by Sir Henry Bishop, Coombs and Co. Burlington-street.
† Mentioned in THE BUILDER, p. 536.—Ed.